

Investigation of lifestyle behaviors of women with and without stress urinary incontinence

Lifestyle behaviors of women with stress urinary incontinence

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Abstract

Aim: The aim of this study was to compare the lifestyle behaviors of women with and without stress urinary incontinence (SUI), and to investigate the effects of lifestyle behaviors on SUI.

Materials and Methods: The study included 30 women who were diagnosed with SUI, 25-50 years old, who agreed to participate in the study voluntarily and 30 healthy women who met our study criteria with a total of 60 women. The data were evaluated using a questionnaire including demographic information and urinary incontinence risk factors of the women prepared by the researcher, and healthy lifestyle behaviors by Healthy Lifestyle Behavior Scale-II (HLBS-II), SUI by International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF).

Results: When the HLBS-II scores of the groups were examined, it was observed that the scores of the group with SUI were lower and a statistically significant difference was found between the groups ($p < 0.005$). There was a negative statistically significant relationship between the total score HLBS-II and total score ICIQ-SF ($p = 0.026$).

Discussion: As a result, healthy lifestyle behaviors are associated with SUI, and will affect the lifestyle positively.

Keywords

Behavior; Female; Healthy Lifestyle; Urinary Incontinence

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Introduction

Urinary incontinence (UI) is defined by the International Continence Society (ICS) in 2002 as “complaint of involuntary incontinence of any kind, regardless of quantity” in standardization report on terminology [1]. According to the literature, although urinary incontinence is a common problem especially after middle age, it is a chronic condition experienced by women of all ages and negatively affects the quality of life. While urge or mixed type incontinence is seen more frequently with older age, stress type incontinence is seen more frequently in young women [2]. It is reported that more than 200 million individuals worldwide have incontinence problems and the majority of them are women and the most common type is stress incontinence [3]. Presence of stress incontinence most seen in women aged 25-49 years, and the incidence of urge and mixed urinary incontinence increases with age [4].

Among the risk factors of urinary incontinence in women, behavioral risk factors are associated with individuals’ lifestyle choices and are thought to be less common in individuals who have adopted a healthier lifestyle. Healthy lifestyle behaviors emphasize the awareness of an individual health. Regular exercise, proper sleep, regular and balanced nutrition, and good communication in social relations are examples of healthy lifestyle behaviors [5].

There are many studies in the literature on healthy lifestyle behaviors. The individuals selected in the studies were mostly university students and healthcare professionals from different fields. The number of studies conducted on women with biological, psychological, social aspects and characteristics different from men remained inadequate. Studies have shown that individuals’ health status is associated with lifestyle behaviors. However, it has not been investigated that healthy lifestyle behaviors are effective in preventing the occurrence of chronic diseases. Healthy lifestyle behaviors contribute to the prevention of many chronic diseases such as urinary incontinence and/or the prognosis of these diseases in a positive way [6]. Our study aims to determine the lifestyle changes in women with stress urinary incontinence to compare them with healthy women and to raise awareness about these differences.

Material and Methods

Design

Our study was completed in accordance with the Helsinki Declaration Rules and approved by our university’s Non-Interventional Ethics Committee on 28/02/2019 and numbered 46. Informed consent form was obtained from the women who volunteered to participate in the study. Our study is a questionnaire survey that includes a healthy control group.

Participants

The study was conducted face to face with a total of 60 participants. Thirty women diagnosed with stress urinary incontinence in the gynecology department of the hospital between 25-50 years of age who agreed to participate in the study voluntarily and 30 healthy women who match the inclusion criteria were included in the study.

Inclusion criteria were as follows: 25-50 years of age; voluntarily agree to participate in the study; diagnosis of stress urinary

incontinence made by the physician.

Exclusion criteria were as follows: the presence of urinary incontinence due to neurological disease in addition to stress urinary incontinence; having undergone gynecological surgery; insufficient cooperation.

Evaluation Criteria included researcher questionnaire including demographic information and urinary incontinence risk factors prepared by the researcher, 3 questionnaires including Healthy Lifestyle Behavior Scale II (HLBS-II) to evaluate healthy lifestyle behaviors, International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) to assess stress urinary incontinence which were filled in a face-to-face interview under the supervision of the researcher.

Researcher Questionnaire is a form prepared by the researcher and prepared by considering the subjects we intend to evaluate in the participants. Demographic information, educational and occupational information, marital status and obstetric history, assessment of existing health problems, physical activity and sports status, smoking and fluid consumption habits were recorded.

Healthy Lifestyle Behavior Scale II (HLBS-II): Healthy Lifestyle Behaviors Scale measures how much an individual adopts healthy lifestyle behaviors. The validity and reliability study of HLBS-II was performed by Bahar et al. [7]. The subtitles of the scale are Health Responsibility, Physical Activity, Nutrition, Spiritual Development, Interpersonal Relations and Stress Management. Each subheading can be used as a stand-alone assessment method. Individuals answer the scale questions on healthy lifestyle behaviors by marking one of the rating statements that they think is appropriate for them. The rating was made as a 4-point likert. The answers are given 1 for the “never” response, 2 for the “sometimes” response, 3 for the “frequent” response, and 4 for the “regular” response. The lowest total score was 52 and the highest total score was 208. As the total score increases, it is accepted that individuals have healthier lifestyle behaviors.

International Consultation on Incontinence Questionnaire Short Form (ICIQ-SF Turkish Version) is an assessment scale developed and approved by ICS for the purpose of creating a questionnaire that will demonstrate in detail all aspects of urinary incontinence and its impact on quality of life for use in research. Validity and reliability of the Turkish version was studied by Çetinel et al [8]. This questionnaire is used to determine the presence, severity, frequency and type of incontinence and to understand the situations in which it occurs. It may also indicate the extent to which urinary incontinence affects an individual’s quality of life. It consists of 6 questions. The first 2 questions include date of birth and gender. ICIQ Total Score is the total score of the 3rd, 4th and 5th questions, scored between 0 and 21. The higher the score, the more the impact indicates. The sixth question includes questions to determine in which cases urinary incontinence occurs.

Statistical analysis

In the data analysis of the study, Package Statistical Package for Social Sciences (SPSS) Version 22.0 (SPSS inc. Chicago Province USA) statistical program was used. “One sample Kolmogorov-Smirnov” test was used to determine whether the distribution of the data groups was normal in order to select the

appropriate advanced statistical analyzes in the data analysis of the study. The baseline demographic characteristics and questionnaire measurements of both groups were compared with “Independent Samples t-Test” and “Student t-Test”. The comparison of categorical data was performed with the Chi-Square test. Parametric variables were expressed as mean \pm standard deviation (mean \pm SD) and descriptive variables were expressed as percentages. In all analyzes, $p < 0.05$ (bidirectional) values were considered statistically significant.

Results

The results of the researcher questionnaire evaluation according to the groups and the comparison between the groups is shown in Table 1, HLBS-II scores and the comparison of the groups in Table 2, ICIQ-SF questionnaire total score and subcategories, and total score and subscales. The relationship results were shown in Table 3.

There was no statistically significant relationship between ICIQ-SF3 incontinence incidence frequency and height ($p = 0.893$), weight ($p = 0.264$), and BMI ($p = 0.189$) in the study group ($p > 0.005$). There was a statistically significant relationship between age ($p = 0.001$) and ICIQ-SF3 incontinence incidence frequency ($p < 0.005$). There was no statistically significant relationship between ICIQ-SF4 urinary incontinence score and age ($p = 0.862$), height ($p = 0.595$), weight ($p = 0.887$), BMI ($p = 0.975$) of the study group ($p > 0.005$). There was no statistically significant relationship between ICIQ-SF5 urinary incontinence effect on daily life score and age ($p = 0.300$), height ($p = 0.176$), weight ($p = 0.489$) and BMI ($p = 0.913$) in the study group ($p > 0.913$). There was no statistically significant relationship between ICIQ-SF total score and height ($p = 0.311$), weight ($p = 0.266$), and BMI ($p = 0.521$) in the study group ($p > 0.005$). There was a statistically significant relationship between age ($p = 0.022$) and ICIQ-SF total score ($p < 0.005$). There was no statistically significant relationship between ICIQ-SF6 urinary incontinence score and height ($p = 0.645$), weight ($p = 0.112$) and BMI ($p = 0.084$) in the study group ($p > 0.005$). There was a statistically significant relationship between age ($p = 0.002$) and ICIQ-SF6 urinary incontinence score ($p < 0.005$). In our study, ICIQ-SF questionnaire score was 0 in the control group and was not included in the comparison. There was a statistically significant relationship between ICIQ-SF3 incontinence frequency score and educational status ($p = 0.027$), occupation ($p = 0.037$), and sitting time during work ($p = 0.037$) in the study group ($p < 0.005$). There was no statistically significant relationship between income statuses ($p = 0.258$). There was no statistically significant relationship between ICIQ-SF4 urinary incontinence quantity score and education status ($p = 0.648$), occupation ($p = 0.127$), sitting time during work ($p = 0.182$), income status ($p = 0.096$) in the study group ($p > 0.005$). There was a statistically significant relationship between ICIQ-SF5 urinary incontinence and effect on daily living score of study group ($p = 0.816$), occupation ($p = 0.568$), sitting time during work ($p = 0.550$) and income ($p = 0.477$). There was no statistically significant relationship between ICIQ-SF total score and educational status ($p = 0.310$), occupation ($p = 0.516$), sitting time during work ($p = 0.549$), income status ($p = 0.855$) of the study group. There was no statistically significant relationship between ICIQ-SF6

urinary incontinence score and education status ($p = 0.066$), occupation ($p = 0.817$), sitting time during work ($p = 0.481$), income status ($p = 0.989$) in the study group ($p > 0.005$). There was no statistically significant relationship between ICIQ-SF3 incontinence frequency and marital status ($p = 0.584$) and cesarean delivery ($p = 0.611$) in the study group. There was a statistically significant relationship between the number of births ($p = 0.001$), delivery type ($p = 0.001$), normal birth ($p = 0.001$) and menopause ($p = 0.004$). There was no statistically significant relationship between ICIQ-SF4 incontinence quantity and marital status ($p = 0.438$), number of births ($p = 0.067$), normal birth ($p = 0.485$), and menopause ($p = 0.745$). There was a statistically significant relationship between type of delivery ($p = 0.043$) and cesarean section ($p = 0.022$). Marital status ($p = 0.729$), number of deliveries ($p = 0.162$), delivery type ($p = 0.960$), normal delivery ($p = 0.065$), cesarean section ($p = 0.485$) and the effect of ICIQ-SF5 urinary incontinence on daily life of the study group subjects, menopause ($p = 0.242$). There was no statistically significant relationship between ICIQ-SF total score and marital status ($p = 0.875$), delivery type ($p = 0.105$), cesarean delivery ($p = 0.983$) in the study group. There was a statistically significant relationship between the number of births ($p = 0.005$), normal birth ($p = 0.003$) and menopause ($p = 0.038$). The relationship between ICIQ-SF6 urinary incontinence and marital status ($p = 0.394$), delivery type ($p = 0.332$), normal delivery ($p = 0.054$), cesarean section ($p = 0.540$) and menopause ($p = 0.086$) between the study group cases no statistically significant relationship was found ($p > 0.005$). There was a statistically significant relationship between the number of births ($p = 0.028$). There were no statistically significant differences between ICIQ-SF3, ICIQ-SF4, ICIQ-SF5, ICIQ-SF Total, ICIQ-SF6 scores and regular sports, duration of sports, presence of chronic disease, presence of constipation and frequent urinary tract infection ($p > 0.05$). There was no statistically significant relationship between ICIQ-SF3, ICIQ-SF4, ICIQ-SF5, ICIQ-SF Total, ICIQ-SF6 and cigarette use, water consumption, tea consumption, coffee consumption, acidic / carbonated beverage consumption ($p > 0.05$). When ICIQ-SF3 frequency of incontinence was evaluated in the study group, 26.7 % once or less than once a week, 43.3 % 2-3 times a week, 16.7 % once a day, 13.3 % urinary incontinence several times a day ($p = 0.001$). When the ICIQ-SF4 urinary incontinence quantity was examined, 96.7 % of the study group patients had a small amount and 3.3 % of them had moderate incontinence ($p = 0.001$). ICIQ-SF6 incontinence was examined, it was found that 43.3 % of the study group cases had coughing and / or sneezing, 10 % were on the move and / or doing sports, and 46.7% had incontinence in both cases ($p = 0.001$). There was a statistically significant relationship between ICIQ-SF total score and ICIQ-SF3 urinary incontinence and the effect of ICIQ-SF5 urinary incontinence on daily life ($p = 0.001$).

Discussion

The aim of this study was to investigate the healthy lifestyle behaviors of women with and without stress urinary incontinence and to compare the relationship of these behaviors with incontinence and to raise awareness about the possibility that lifestyle behaviors may cause urinary incontinence problem.

Table 1. Demographical, Clinical, and Physical Characteristics of Participants.

		Study Group (Mean ± SD) n (%)	Control Group (Mean ± SD) n (%)	p*
Age (Years)		37.77 ± 7.02	34.20 ± 6.09	0.040
Height (m)		1.63±0.06	1.66±0.06	0.055
Weight (kg)		70.13±14.90	59.07±9.66	0.001
BMI (kg/m2)		26.38 ± 5.84	21.34 ± 3.20	0.001
Education Level	Primary	1 (33)	0 (0)	0.313
	Secondary	6 (20)	3 (10)	
	High	23 (76.7)	27 (90)	
Occupation	White collar	18 (60)	26 (86.7)	0.009
	Blue collar	4 (13.3)	4 (13.3)	
	Not working	8 (26.7%)	0 (0%)	
Income status	0	5 (16.7)	0 (0)	0.019
	<2.000	2 (6.7)	1 (3.3)	
	2.000-3.000	10 (33.3)	4 (13.3)	
	3.000-5.000	4 (13.3)	9 (30)	
	>5.000	9 (30)	16 (53.3)	
Working time (Years)		8.03 ± 7.57	10.20 ± 6.14	0.228
Study residence time (hours)		2.49 ± 3.72	5.75 ± 4.93	0.322
Marital status	Married	17 (56.7)	14 (46.7)	0.849
	Single	9 (30)	14 (46.7)	
	Divorced/ widow	4 (13.3)	2 (6.7)	
Type of birth	Nulliparous	11 (36.7)	24 (80)	0.009
	Normal	10 (33.3)	0 (0)	
	Cesarean	6 (20)	6 (20)	
	Normal+Cesarean	3 (10)	0 (0)	
Menopause	Yes	3 (10)	0 (0)	0.078
	No	27 (90)	30 (100)	
Duration of marriage (years)		8.71±10.25	1.90±3.13	0.001
Number of births		1.43±1.43	0.20±0.40	0.001
Presence of Chronic Disease	Yes	3 (10)	4 (13.3)	0.694
	No	27 (90)	26 (86.7)	
Regular Drug Use	Yes	3 (10)	4 (13.3)	0.694
	No	27 (90)	26 (86.7)	
Presence of Constipation	Yes	12 (40)	4 (13.3)	0.019
	No	18 (60)	26 (86.7)	
Transmitting Common Urinary Tract Infection	Yes	17 (56.7)	2 (6.7)	0.001
	No	13 (43.3)	28 (93.3)	
Regular Fitness	Yes	7 (23.3)	20 (66.7)	0.001
	No	23 (76.7)	10 (33.3)	
Sport Time (hours)		0.60 ± 1.16	4.27 ± 4.01	0.001
Smoking	Yes	10 (33.3)	5 (16.7)	0.141
	No	20 (66.7)	25 (83.3)	
Water Consumption (lt)		1.93±0.740	2.63±1.189	0.008
Tea Consumption (tea cup)		1.83±1.053	1.17±0.592	0.515
Coffee Consumption (cup)		3.40±1.276	3.17±1.117	0.454
Acid / Carbonated Beverage Consumption (glass)		1.83±1.037	1.17±0.486	0.004
BMI: Body Mass Index, SD: Standart deviation, n=number of participants				

Table 2. The comparison of participants' healthy lifestyle behaviors.

	Study Group (Mean ± SD)	Control Group (Mean ± SD)	p*
Interpersonal Relationship	23.37±3.44	28.63±3.58	0.001
Nutrition	18.50±3.27	24.37±4.60	0.001
Health Responsibility	17.03±2.39	23.63±3.89	0.001
Physical Activity	11.80±3.05	21.33±5.45	0.001
Stress Management	15.63±2.46	21.40±3.19	0.001
Self Realization	22.43±3.06	29.7±3.82	0.001
Total HLBS-II	108.77±10.94	148.43±15.19	0.001
Higher scores indicate better life. SD: Standart deviation, * Student T-Testi.			

Table 3. The relationship between stress urinary incontinence status and healthy lifestyle behaviors of groups.

		ICIQ-SF									
HLBS-II		ICIQ-SF3		ICIQ-SF4		ICIQ-SF5		ICIQ-SF total		ICIQ-SF6	
		r	p	r	P	r	p	r	p	r	p
	Interpersonal Relationship	-.141	.458	-.135	.328	-.237	.207	-.273	.145	-.131	.489
	Nutrition	-.166	.381	-.376	.041	.026	.890	-.109	.565	-.063	.742
	Health Responsibility	-.237	.207	-.319	.085	-.399	.029	-.460	.011	-.202	.283
	Physical Activity	-.126	.506	-.236	.210	-.208	.270	-.252	.179	-.252	.178
	Stress Management	-.316	.089	-.049	.798	-.137	.471	-.248	.187	-.364	.048
	Self Realization	-.105	.581	-.088	.642	-.204	.279	-.217	.250	-.398	.029
	Total HLBS-II	-.281	.133	-.341	.065	-.299	.108	-.405	.026	-.368	.046

It was found that women with more healthy lifestyle behaviors have less stress urinary incontinence.

Fat tissue accumulated in the body due to excess weight and obesity regularly causes intra-abdominal pressure, causing stress-type urinary incontinence. BMI increases in proportion to weight. Studies have reported that the incidence of urinary incontinence is more common in overweight and obese individuals with high BMI, and that stress is the most common cause of urinary incontinence [9-11]. In our study, the mean BMI values found to be 26.38 kg/m² in the study group, 21.34 kg/m² in the control group. There was a statistically significant difference between the groups in BMI. Our study is consistent with the studies in which the above mentioned BMI increase leads to urinary incontinence and shows parallelism to the literature.

There are different findings in the relationship between education level and urinary incontinence in the literature. Along with studies indicating that there is no relationship between education level and urinary incontinence [10, 12] there are also studies indicating that the incidence of urinary incontinence is higher in women with low educational level [13-15]. In our study, there was no significant relationship between education level and SUI. The reason for this is the scores of the study and control group were close to each other.

There are differences in the relationship between income status and urinary incontinence. In response to studies indicating that income status is not associated with urinary incontinence [16] in our study, occupational and income status were found to be statistically related to urinary incontinence. As a reason of difference thought that the participants of control group have higher occupation level and income status. There are differences in the relationship between marital status and urinary incontinence. Fritel et al. In their study, no significant relationship was found between marital status and urinary incontinence [12]. In our study, no significant difference was found between the groups.

Studies show that women who gave birth multiple times have a higher rate of stress urinary incontinence than women who have not given birth. It is reported that the prevalence of urinary incontinence increases with each additional delivery after the first delivery [2, 18]. In our study, the relationship between the number of births and stress urinary incontinence was found to be significant and consistent with the literature. It is stated that there is a close relationship between the delivery type and urinary incontinence. It is determined that normal birth causes urinary incontinence more compared to c-section birth. Caesarean delivery has a protective effect in stress incontinence [3, 17, 19]. Rortveit et al. reported that the rate of delivery was higher in those with normal delivery type compared to those with cesarean section [20]. In our study, no significant relationship was found between marital status and menopause and urinary incontinence. Studies with a close relationship between urinary incontinence and menopause have been found in the literature [20]. Our study is not compatible with the literature. Since the sample group was selected from the premenopausal period, it was thought that the small number of menopausal participants had an effect on this.

In literature, systemic diseases such as congestive heart

failure, diabetes mellitus, diabetes insipidus, and chronic obstructive pulmonary disease-causing chronic cough cause urinary incontinence [12, 14, 21]. In the study group of our study, diabetes mellitus was found in 1 participant. In our study, no significant relationship was found between the presence of chronic disease and regular drug use and stress urinary incontinence. The reason for this is thought to be due to the presence of chronic diseases in a small number of participants and the absence of drugs in the risk group causing urinary incontinence.

Recurrent bladder infections are risk factors for urinary incontinence. The increased incidence of urinary incontinence in women with frequent urinary tract infections most often associated with stress and urge type incontinence [11, 17]. It has been reported that the prevalence of urinary incontinence is high in women with frequent urinary tract inflammation [14, 20, 22]. Gunhilde et al. in their study, found that women with urinary tract infection had a higher rate of stress urinary incontinence [9]. In our study, the relationship between frequent urinary tract infection and stress urinary incontinence was found to be statistically significant and consistent with the studies.

The presence of constipation leads to increased intra-abdominal pressure by straining during defecation. If this condition is experienced for a long time, it causes tension in the pelvic nerves. Constipation causes stress and urge type incontinence mostly [15]. Constipation has been reported to increase urinary incontinence [22, 23]. In our study, the relationship between the presence of constipation and stress urinary incontinence was found to be statistically significant, and the result was parallel to the literature.

Stress urinary incontinence was found to be lower in women with higher levels of physical activity, but it was found that women with stress urinary incontinence did not prefer some physical activities and decreased physical activities [24, 25]. Nygaard et al. in their study, has found that physical activity such as jumping increased the incidence of stress urinary incontinence [26]. In our study, the relationship between regular exercises and sport duration and stress urinary incontinence was found to be statistically significant; 66.72 % of the control group did regular sports and weekly sports duration was 4.26 hours; It was determined that 23.3 % of the study group did regular sports and weekly sports duration was 0.60 hours. It was found that the control group had more regular sports and the duration of sports was longer. In our study, the participants were asked about the type of sport and control group participants preferred pilates, yoga, jogging and zumba sports, and the study group preferred regular walking. The reason for this is thought to be that individuals with stress urinary incontinence do not prefer coercive activities.

Smoking disrupts estrogen levels and leads to a decrease in collagen synthesis. Smoking causes all types of urinary incontinence. Smoking leads to chronic cough and increases intra-abdominal pressure and stress causes urinary incontinence [24]. In our study, the relationship between smoking and stress urinary incontinence was insignificant. The reason for this is thought to be related to the fact that smoking and smoking rates were parallel in the study and control groups.

In the literature, it has been found that consuming caffeine-

containing beverages such as coffee is a bladder irritant and may cause involuntary detrusor contractions, leading to urinary incontinence. Inadequate fluid intake increases urine density, irritating the bladder and urethra, resulting in more frequent incontinence and constipation. It is emphasized that at least 1.5 liters of water should be consumed daily in order to prevent urinary incontinence [27]. Gleason et al. [28] found the relationship between caffeine consumption and urinary incontinence, Hannestad et al. [24] found a significant relationship between urinary incontinence and tea consumption, although Hirayama et al. did not find a significant relationship between caffeine consumption and urinary incontinence in their study [29]. In our study, no significant relationship was found between coffee and tea consumption and stress urinary incontinence. The reason for this is thought to be the similarity of the consumption amounts of the study and control groups and the type of coffee consumed is not known. Detailed research on this subject is recommended. Ge et al. reported that reducing daily water consumption leads to urinary incontinence [15]. Hu et al. and O'Neil et al. in their studies, found that high consumption of high-sugar drinks containing carbonated beverages by increasing weight gain has affected many chronic diseases such as stress urinary incontinence [5, 6]. In our study, the relationship between water consumption and acid/carbonated beverage consumption and stress urinary incontinence was found to be significant. It is seen that 83.4 % of the study group consumed 1.5 lt and below water and this is thought to be the reason of general habits.

If we look at the studies carried out using HLBS-II in our country, these studies were conducted in different groups such as women, teachers, teaching staff, assistants, nurses, health workers, university students, housewives, pregnant women, elderly people and were not examined in cases with urinary incontinence. In our study, two groups with and without stress urinary incontinence were investigated and no other study investigating HLBS-II in patients with urinary incontinence was found. In our study, it was found that the total score of the HLBS-II was low in the study group as 108.77 ± 10.94 , and the control group had a moderate score of 148.43 ± 15.19 . In most of the studies conducted on women in our country, the total score of HLBS-II was found to be low and moderate as in our study, and our study is parallel to literature. In our study, the lowest score in the study group was 11.80 ± 3.05 , and this was thought to be related to the fact that women had low habit of exercising and did not prefer to exercise for individual and cultural reasons.

When ICIQ-SF3 incontinence frequency is examined, in a study of women aged 18 and over; 45.9 % of women reported that they leak urine less than two times a week, 17.4 % 2-3 times a week, 9.9 % once a day, 13.2 % several times a day [11]. In our study, when the frequency of ICIQ-SF3 urinary incontinence in the study group was examined, 26.7 % was 1 week or less, 43.3 % was 2-3 times a week, 16.7 % was once a day, 13.3 % few have been found to leak a few times per day. When ICIQ-SF4 incontinence quantity is examined, 96.7 % of the study group is incontinent and our results are consistent with the literature. Looking at the effect of ICIQ-SF5 incontinence on daily life, the mean score of the study group was found to be 4.5, and as

stated in the literature, quality of life was poorly affected. In our study, when the effects of stress urinary incontinence on quality of life were examined, the overall effect of women's quality of life was found to be low and moderate. Looking at ICIQ-SF6 incontinence cases, 43.3 % of the study group was found to have coughing and/or sneezing, 10 % while on the move and / or doing sports, and 46.7 % of them were leaking in both cases and it is consistent with stress urinary incontinence findings.

Conclusion

Choosing healthy lifestyle behaviors positively affects stress urinary incontinence. Stress urinary incontinence is affected by age, BMI, occupation, income status, number of births, mode of delivery, duration of marriage, presence of constipation, frequency of urinary tract infection, regular exercise, duration of sports, water consumption and acid / carbonated beverage parameters. In women with stress urinary incontinence, the quality of life of women with high health responsibility scores was less affected.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

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Conflict of interest

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